

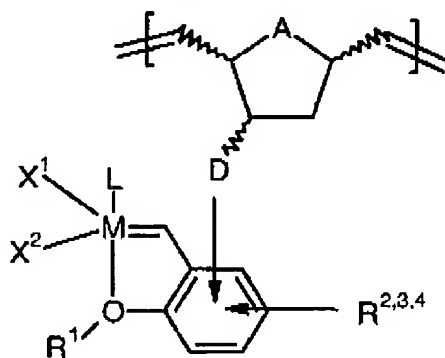
**AMENDMENT TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A polymeric transition metal catalyst comprising, a polymeric compound ~~Polymeric compounds~~ containing at least one transition metal catalyst comprising: at least

• at least one structural units unit of the formula (Ia)[,];

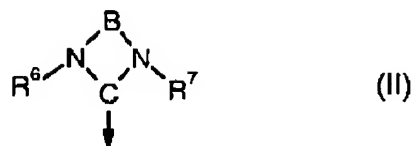


where:

M is a transition metal of the 8<sup>th</sup> transition group of the Periodic Table[,];

X<sup>1</sup> and X<sup>2</sup> are the same or different and are each chlorine, bromine or iodine[,];

L is an N-heterocyclic carbene ligand of the formula (II);



where the direction of the arrow is intended to represent the bond to M  
and where:

B is a 1,2-ethanediyl or 1,2-ethenediyl radical which is optionally mono- or disubstituted by C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>6</sub>-C<sub>15</sub>-arylalkyl or C<sub>5</sub>-C<sub>14</sub>-aryl; and

R<sup>6</sup> and R<sup>7</sup> are each independently C<sub>1</sub>-C<sub>20</sub>-alkyl or C<sub>5</sub>-C<sub>24</sub>-aryl; and

R<sup>1</sup> is cyclic, straight-chain or branched C<sub>1</sub>-C<sub>20</sub>-alkyl or C<sub>5</sub>-C<sub>24</sub>-aryl; and

R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are each independently hydrogen, C<sub>1</sub>-C<sub>20</sub>-alkyl, C<sub>5</sub>-C<sub>24</sub>-aryl, halogen, C<sub>1</sub>-C<sub>4</sub>-fluoroalkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>5</sub>-C<sub>14</sub>-aryloxy, (C<sub>1</sub>-C<sub>8</sub>-alkyl)OCO-, (C<sub>1</sub>-C<sub>8</sub>-alkyl)CO<sub>2</sub>-, (C<sub>5</sub>-C<sub>14</sub>-aryl)OCO- or (C<sub>5</sub>-C<sub>14</sub>-aryl)CO<sub>2</sub>-; and/or

in each case two radicals in an ortho-arrangement to one another from the group of R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are part of a cyclic system which consists of a carbon framework having 5 to 22 carbon atoms, one or more carbon atoms of the cyclic system optionally being replaced by heteroatoms from the group of sulphur, oxygen or nitrogen, and the cyclic system also being optionally mono- or polysubstituted by radicals selected from the group of halogen, C<sub>1</sub>-C<sub>4</sub>-fluoroalkyl, (C<sub>1</sub>-C<sub>4</sub>-alkyl)OCO-, (C<sub>1</sub>-C<sub>8</sub>-alkyl)CO<sub>2</sub>-, (C<sub>6</sub>-C<sub>10</sub>-aryl)OCO- or (C<sub>5</sub>-C<sub>14</sub>-aryl)CO<sub>2</sub>-; and



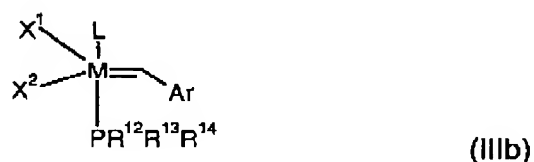
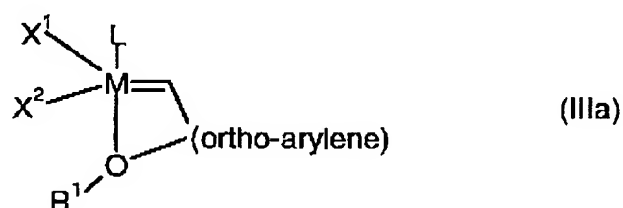
$R^{11}$  is  $C_1$ - $C_8$ -alkyl,  $[(C_1$ - $C_8$ -alkylene)- $O$ ] $_n$ -( $C_1$ - $C_8$ -alkyl) where  $n = 1$  to  $12$ ,  $(C_1$ - $C_8$ -alkylene) $CO_2$ -( $C_1$ - $C_8$ -alkyl),  $(C_1$ - $C_8$ -alkylene)- $OCO$ -( $C_1$ - $C_8$ -alkyl),  $(C_1$ - $C_8$ -alkylene)- $OCO$ -( $C_5$ - $C_{14}$ -aryl),  $(C_1$ - $C_8$ -alkylene) $CO_2$ -( $C_5$ - $C_{14}$ -aryl),  $(C_1$ - $C_8$ -alkylene) $CONR^{10}$ -( $C_1$ - $C_8$ -alkyl),  $(C_1$ - $C_8$ -alkylene) $NR^{10}CO$ -( $C_1$ - $C_8$ -alkyl),  $(C_1$ - $C_8$ -alkylene)- $CONR^{10}$ -( $C_5$ - $C_{14}$ -aryl) or  $(C_1$ - $C_8$ -alkylene) $NR^{10}CO$ -( $C_5$ - $C_{14}$ -aryl) where  $R^{10}$  is hydrogen or  $C_1$ - $C_4$ -alkyl.

2. (Cancelled)
3. (Currently Amended) ~~Polymeric compounds~~ The polymeric compound according to one or more of Claims 1 and 2, ~~characterized in that they also contain further comprising at least one structural units unit which are derived from olefins which are suitable for ring-opening metathesis polymerization.~~
4. (Currently Amended) ~~Polymeric compounds~~ The polymeric compound according to ~~one or more of Claims 1 to 3~~ Claim 1, characterized in that wherein the numerical average of the degree of polymerization (numerical average) is 6 to 2000.
5. (Currently Amended) ~~Polymeric compounds~~ The polymeric compound according to ~~one or more of Claims 1 to 5~~ Claim 1, characterized in that wherein A, D, M, L, X1 and X2 and likewise R1, R2, R3, R4 and any R11 radicals present in the structural units of the formulae (Ia), (Ib) and, if present, (Ic) are each identical.
6. (Currently Amended) ~~Polymeric compounds~~ The polymeric compound according to ~~one or more of Claims 1 to 5~~ Claim 1, characterized in that wherein the average proportion by weight of structural units of the formula (Ia) and of the formula (Ib) and any structural units of the formula (Ic) present is 80% or more.

7. ~~(Currently Amended) Polymeric compounds~~ The polymeric compound according to ~~one or more of Claims 1 to 6~~ Claim 1, characterized in that wherein the ratio of structural units of the formula (Ia) to structural units of the formula (Ib) is 1:2 to 1:500.
8. ~~(Currently Amended) Polymeric compounds~~ The polymeric compound according to ~~one or more of Claims 2 to 7~~ Claim 1, characterized in that wherein the ratio of structural units of the formula (Ia) to structural units of the formula (Ic) is 10:1 to 1:200.
9. ~~(Currently Amended) Polymeric compounds~~ The polymeric compound according to ~~one or more of Claims 1 to 8~~ Claim 1, characterized in that wherein D in the structural units of the formulae (Ia) and (Ib) is bonded via the ortho-position to the olefin or the ylidene unit.
10. ~~(Currently Amended) Polymeric compounds~~ The polymeric compound according to ~~one or more of Claims 1 to 9~~ Claim 1, characterized in that wherein M in formula (Ia) is ruthenium or osmium.
11. ~~(Currently Amended) Polymeric compounds~~ The polymeric compound according to ~~one or more of Claims 1 to 10~~ Claim 1, characterized in that wherein B in formula (II) is 1,2-ethanediyl or 1,2-ethenediyl.
12. ~~(Currently Amended) Polymeric compounds~~ The polymeric compound according to ~~one or more of Claims 1 to 11~~ Claim 1, characterized in that wherein R<sup>6</sup> and R<sup>7</sup> in formula (II) are identical and are each a primary C<sub>5</sub>-C<sub>20</sub>-alkyl radicals, with the proviso that wherein the carbon atom bonded to the nitrogen atom bears a tertiary alkyl radical, or are each a secondary C<sub>3</sub>-C<sub>20</sub>-alkyl radicals, a tertiary

C<sub>4</sub>-C<sub>20</sub>-alkyl radicals, or a mono- or poly-substituted phenyl radicals which is ~~further mono- or polysubstituted, although at least~~ wherein substitutions are in an ortho-position, by C<sub>1</sub>-C<sub>4</sub>-alkyl radicals.

13. (Withdrawn) Process for preparing polymeric compounds, characterized in that compounds of the formula (IIIa) and/or (IIIb)



where

R<sup>1</sup>, L, X<sup>1</sup> and X<sup>2</sup> each have the definition and areas of preference specified in Claim 1 under formula (Ia) and

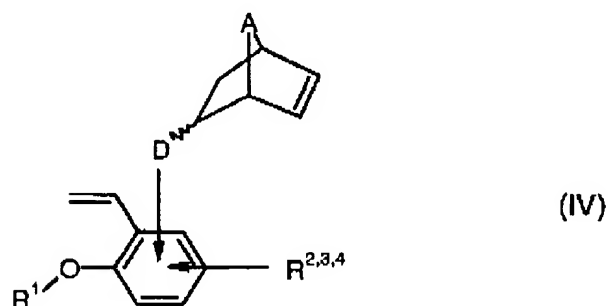
ortho-arylene is an ortho-phenylene or ortho-naphthylene radical, for example 1,2-naphthylene, and the radicals mentioned may also be substituted by one, two, three or four radicals per cycle which are selected from the group of C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>5</sub>-C<sub>14</sub>-aryl and C<sub>1</sub>-C<sub>4</sub>-alkoxy and

Ar is C<sub>5</sub>-C<sub>14</sub>-aryl and

$R^{12}$ ,  $R^{13}$  and  $R^{14}$  are each independently  $C_1$ - $C_8$ -alkyl or  $C_5$ - $C_{14}$ -aryl

are reacted

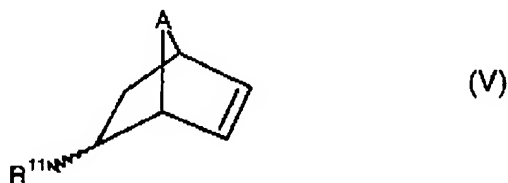
- with at least one compound of the formula (IV)



where

$R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ , A and D have the definition and areas of preference specified under formula (Ia) in Claim 1.

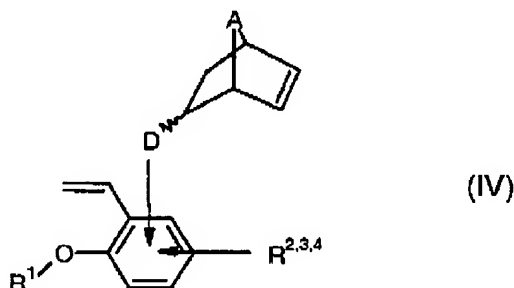
14. (Withdrawn) Process according to Claim 13, characterized in that the reaction is also effected with at least one compound of the formula (V),



where

$R^{11}$  and A each have the definition and areas of preference specified under formula (Ic) in Claim 2.

15. (Withdrawn) Process according to one or more of Claims 13 or 14, characterized in that the reaction is also effected with one or more further olefins which can be polymerized by ring-opening metathesis.
16. (Original)-~~Compound~~ A polymeric transition metal catalyst precursor comprising a compound of the formula (IV):



where:

$R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ , A and D are each as defined under formula (Ia) in Claim 1.

17. (Currently Amended) A polymeric transition metal catalyst precursor compound comprising: 7-Oxa-2-norborn-2-en-5-ylmethyl 2-isopropoxy-3-ethenylphenyl ether.
18. (Withdrawn) Use of polymeric compounds according to one or more of Claims 1 to 12 as catalysts.
19. (Withdrawn) Process for preparing olefins by catalytic olefin metathesis, characterized in that the catalysts used are polymeric compounds according to one or more of Claims 1 to 12.



20. (Withdrawn) Process according to Claim 19, characterized in that the catalysts are removed from the catalytic reaction mixtures and reused for the preparation of olefins by catalytic olefin metathesis.